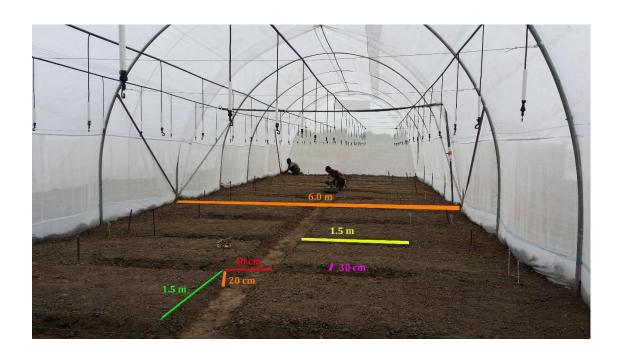


Instruction on Growing Bamboo Seeds in Nursery

I: How to prepare seedbed for bamboo seeds?

- 1. Calculate the total area required to contain the amount of plants you need to plant.
- 2. Choose a good flat land with least pest and disease, turn soil over.
- 3. Set up green house with micro-spray irrigation hung at top of green house. Suggested size of green house: 6 meter wide by 30 meter long by 2 meter high. Plastic film: 0.08-0.12 mm thick, 10.5 m wide by 34.5 m long; Plastic film: 90% light off, 10.5 m wide by 34.5 m long.
- 4. Loosen soil, break up soils, take out any big particle, level soil
- 5. Divide the green house into two columns with a walkway in the middle. Make each seedbed at 1.5 m wide separated by a walkway of 30 cm. Surface of seedbed shall be 20 cm higher than walkway.
- 6. Turn on sprayers and make soil wet totally one day before sowing seeds





II: How to sow bamboo seeds?

- 1. Soak seeds in clean water for 8-12 hours, change water every 6 hours. Amount of water shall be 3-4 times of seed.
- 2. When soaking finishes, take seeds out of water, spread seeds on ground (with plastic film below), spray fungicide and growth regulator solution, mix seeds with solution and pile up for 30-60 mins.
 - (suggested solution: dissolve 3 grams of gibberellin in 60 ml alcohol (75-95%); dissolve 10 grams HC in 100 ml alcohol (75-95%); then put two solutions and 50 grams carbendazim into 10 kg clean water, mix all together)
- 3. Broadcast treated seeds evenly on prepared seedbed. Best density of plants is 1,000 seedlings in 1 square meter. If germination rate of seeds is 50%, shall sow around 2,000 seeds in 1 square meter.
- 4. Cover seeds with dry fine soil at 1-2 cm deep. Irrigate seedbed thoroughly.
- 5. Spray pesticide on surface of seedbed, close up green house for at least half an hour.





III: How to transplant bamboo plants?

When most plants spout and reach 2-3 leaves, it's time to transplant seedlings from seedbed to pots. (Size of pots: diameter 13-15 cm, height 15-18 cm)

- 1. Get enough pots filled with fine soil (90% full), lay on ground under shade net (90% light off), around 10 pots per row. Water soil in pots 1 days before transplanting.
- 2. Irrigate seedbed to make it wet.
- 3. Pick seedlings with soil ball on roots, put seedlings into containers with water and transport to shade net area. Cover plants with shade all the way to avoid sun.
- 4. Put 1 plant in 1 pot within 1 hour after the plant was picked from seedbed. (make a hole of 5 cm deep with a stick or fingers, put the plant in and cover with soil, press soil)
- 5. Irrigate potted plants within half an hour after transplanting.
- 6. The following 5 days are crucial for plants to survive. Make sure they don't suffer from water loss.
- 7. Plants usually starts new growth in 10 days after transplanting. Any dead plants shall be replaced with new plants in around 15 days after transplanting.





IV: How to take care of bamboo plants in nursery?

- 1. Weeding: at the beginning weeds usually grow faster than plants. Remove weeds before the reach the same height of plants.
- 2. Fertilization: first fertilization is suggested at least 5 days after transplanting, by back pack sprayer or irrigation system. 0.3% NPK solution applied to plants every 5-7 days. When plants reach 30 cm high, apply 0.15% urea every 5-7 days in turn with NPK.
- 3. Top-off: to speed up shooting and increase number of shoots, cut off top of plants at height of 30 cm whenever plants reach 50-60 cm high.
- 4. For species with very small amount of seeds available, divide plants from 1 pot to 2-3 pots when each plant has at least 2-3 strong culms which are lignified enough.
- 5. Usually it takes around 6 months in nursery for plants to be ready for moving to open field.

